### **LESSON PLAN**

**Lesson Title** | Vivitrol - SST

### **Presentation Guide Notes to Trainer Introduction:** Today's topic is opiates, their effect on the brain, and how we can supervise offenders with the use of Medically Assisted Treatment and Vivitrol. Vivitrol! Ask class who has someone on their caseload with an opiate addiction. If not everyone has their hands raised, have Everything you've ever wanted (or have been told) to know about medically everyone raise their hands and explain chances are better assisted treatment for opioid dependence. than not everyone supervises someone with an opiate addiction. Learning Objectives **Learning Objectives:** By the end of this training, you should: ø Be able to describe how opiate use and 1) Be able to describe how opiate use and addiction addiction affects the brain. affects the brain. Be able to describe the difference between agonists, partial agonists, and antagonists. 2) Describe the difference between agonists, partial Have a general understanding of the supervision of offenders on Vivitrol. agonists, and antagonists. 3) Have a general understanding of the supervision of offenders on Vivitrol. PRESENTATION: **Opiates and the brain:** Opiates and the Brain Your body has three different types of opioid

Your body has three different types of opioid receptors:

- Delta Peripheral Nervous System
- Kappa Spine
- Mu Central Nervous System

### Mu receptors activate the "Reward Center" of the brain, these are the receptors opiates bind to.

When opiates bind to these receptors, they reduce the amount of GABA, a neurotransmitter which controls the release of dopamine in the body.

- receptors: mu, delta, and kappa.
- An individual will experience different effects based on the type of opiate used and which receptor it binds to.
- O Delta receptors are associated with pain in the peripheral nervous system.
- Kappa receptors are associated with pain in the spine.

When GABA is suppressed, a flood of dopamine is released in the brain, creating a euphoric feeling ("high").

### Addiction vs. Dependence

When the opiates bind to the mu receptors and suppress the GABA neurotransmitter, the user gets high. The brain then creates memories which associate that high with the act of using – this creates an addiction.

Over time, continued use will make these receptors less receptive to opiates, requiring a higher amount of the drug to create the same feeling – this creates a tolerance.

Eventually, the brain begins to function more "normally" when the drug is present. If the brain functions abnormally without the drug, this is called withdrawal and is a sign of physical dependence.

Continued use of opiates will affect the mesolimbic reward system of the brain, preventing the user from getting pleasure from other activities such as eating, sex, and other enjoyable things.

"Caveman Brain" – the craving for the drug will overrule all other basic desires. This is what addiction to opiates does to the brain.

### Opiates and the Brain (cont.)

- Mu receptors are associated with pain in the central nervous system, and activate the reward center of the brain.
  - When opiates bind to the Mu receptors, they reduce the amount of GABA - the neurotransmitter which controls the release of dopamine in the body.
  - The suppression of GABA leads to a flood of dopamine, which creates a euphoric feeling for the user (basically, gets them high).

### Addiction and Dependence

- When opiates bind the Mu receptors, the user feels pleasure.
- The brain creates memories which associate this pleasure with the act of using the drug [addiction].
- Over time, use of opiates alters the way the brain operates.
  - Receptors become less sensitive to opiates and the user will need to consume more for the same effects (tolerance)

# Addiction and Dependence cont.

- Eventually, the brain begins to function more normally when the drug is present.
- Abnormal functioning when the drug is absent is seen in withdrawal [dependence].
- Continued use also effects the mesolimbic reward system of the brain, which prevents the user from getting pleasure from other activities such as eating, sex, and other hobbies.

Today we are talking about medically assisted treatment, there are three different types of medications generally used to treat opiate addiction:

### **AGONISTS:**

Opioid agonists fully activate the opioid receptors in the brain giving the user the "full opioid effect," or a high.

Examples include:

- Heroin
- Oxycodone
- Methadone

## Agonists

- An opioid agonist fully activate opioid receptors in the brain giving the user the "full opioid effect" (high)
- Examples:
- ø Heroin
- Oxycodone
- Methadone
- HydrocodoneMorphine

- Hydrocodone
- Morphine

### **PARTIAL AGONISTS:**

Partial agonists activate the opioid receptors, but to a lesser degree. They suppress cravings and withdrawal symptoms by allowing some opiate affects.

The most common example of a partial agonist is Suboxone.

# Partial Agonists Partial agonists activate opiate receptors, but to a lesser degree. Suppresses cravings and withdrawal symptoms by allowing for some opiate effects, but prevents a high by blocking others. Example: Suboxone

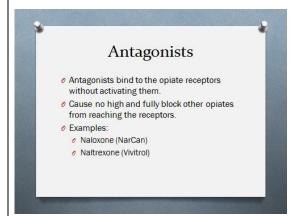
### **ANTAGONISTS:**

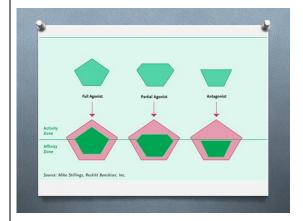
Antagonists bind to the opiate receptors without activating them. They produce no high and fully block other opiates from reaching these receptors:

### Examples:

- -Nalaxone (NarCan)
- -Naltrexone (Vivitrol)

Show and explain visual representation.





### MEDICALLY ASSISTED TREATMENT:

According to the Substance Abuse and Mental Health Services Administration:

### READ LONG DEFINITION

### So what does that actually mean?

Basically, it's the pairing of treatment with medication to hopefully address substance abuse issues with a higher success rate.

### Why do we use it?

Research has shown use of MAT improves patient survival rates, increases retention in treatment, decreases illicit substance use, and reduces the risk of contracting Hep C or HIV (needle use)

Ask the class how well they are able to focus when they are starving, or exhausted. Compare this to an offender who is dealing with an opiate craving. How well are they going to retain information in treatment? Probably not very well.

# We previously talked about three different types of medications used in MAT, now we will go a little more in depth.

### Methadone:

- -Full opioid agonist
- -Relieves cravings and reduces withdrawal symptoms.
- -With controlled use, will not produce a high but there is a higher risk of abuse
- -Must be taken daily
- -Can be administered during active withdrawal.

### Suboxone:

- -Partial opioid agonist
- -Blocks opiate affects
- -Decreases cravings and withdrawal symptoms
- -Often used as a step down from methadone.
- -Taken daily or every other day
- -Can be administered during withdrawal

# What is "Medically Assisted Treatment"? (MAT)

- According to the Substance Abuse and Mental Health Services Administration:
  - o "Medication-Assisted Treatment (MAT) is the use of medications, in combination with counseling and behavioral therapies, to provide a "wholepatient" approach to the treatment of substance use disorders. Research shows that a combination of medication and therapy can successfully treat these disorders, and for some people struggling with addiction, MAT can help sustain recovery."

### Why we use it:

- Research indicates MAT has been shown to:
  - Improve patient survival rates.
  - Increase retention in treatment.
  - Decrease illicit substance use
  - Reducing a person's risk of contracting Hep C or HIV by reducing risk of relapses.

\*For those diagnosed with an opioid abuse disorder

### Methadone

- Full opioid agonist.
- Relieves cravings and reduces withdrawal symptoms by stimulating opiate receptors.
- With controlled use, will not produce a "high," but there is a potential for abuse.
- Must be taken daily and can be administered during opiate withdrawals.

### Suboxone

- Partial opioid-agonist.
- Blocks the affects of opioids without producing a "high."
- Decreases cravings and withdrawal symptoms.
- Less chance of abuse vs. methadone.
- Often used as a step-down from methadone
- Taken daily or every other day and can be administered during withdrawal.

### Naltrexone (Vivitrol)

- -Antagonist
- -NOT an opiate
- -Attaches to the opiate receptors, but does not produce a high
- -Non-habit forming/non-addictive/no chance of abuse
- -Reduces cravings, but CANNOT be administered during withdrawal.
- -IM (intramuscular) injection every 28 days.

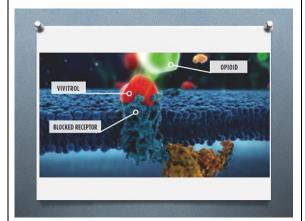
Show and explain visual.

### **VIVITROL IS NOT:**

- -Pleasure producing (no "high")
- -Habit-forming or addictive
- -A replacement/substitute for opiates
- -A "cure-all"
- -Vivitrol helps in addressing the physical aspect of addiction
- -Does not address the underlying reasons for use (criminogenic needs)

### Naltrexone (Vivitrol)

- Antagonist (NOT an opiate)
- Attaches to opioid receptors, but does not stimulate the release of dopamine.
- Reduces cravings, but cannot be taken by those in active withdrawal.
- Non-habit forming, non-addictive, no chance of abuse
- IM (intramuscular) injection every 28 days.



### Vivitrol is NOT:

- Pleasure producing doesn't "get you high"
- Habit-forming
- A replacement or substitute for opioids
- A controlled substance
- A "cure-all"
  - Vivitrol helps in addressing the physical aspect of addiction, i.e. cravings and ability to get high
  - Does not address the underlying reason for use (think criminogenic needs)

### Does it work?

Read and explain study shown on slide.

### Does it Work?

- During a 6 month double blind study in comparison to a placebo:
  - ø 90% were opiate free
  - 55% reduction in self-reported opiate cravings
  - 17x less likely to relapse to physical dependence
  - Stayed in treatment longer (>168 days vs. 96 days)

### **Side affects:**

- -Nausea/dizziness/lightheadedness
- -Depression/suicidal thoughts
- \*Inform class the Vivitrol does not cause depression. Ask why offenders may experience depression after receiving Vivitrol. Answer: They are no longer able to use drugs as a coping skill for their emotions, they now have to experience their emotions and find alternate coping skills (anti-social personality\*
- -Liver injury newer data indicates there is a much lower risk of liver injury than previously thought, but if an offender is exhibiting signs of jaundice or other severe liver issues, they should consult a doctor to determine if they should discontinue Vivitrol.
- -Injection site pain it is a large shot and can be painful. Offenders should ask their doctor if they experience severe or long-lasting pain, or if there is excessive swelling at the injection site.



# Side Affects May Include... Nausea/dizziness/lightheadedness.

- Depression/suicidal thoughts (BUT WHY?!)
- Liver Injury
  - o Especially with IV users, Hepatitis status should be known and considered
  - Vivitrol should be discontinued immediately if clients exhibit acute Hepatitis symptoms
- Injection site pain
- It can be a real "pain in the ass" (pause for laughter)

### **RISK OF OVERDOSE:**

Risk of overdose increases greatly for offenders who use after being on Vivitrol. This happens as a result of two things: they have been sober for a long enough time that their tolerance has decreased and their previous "normal" dose may now be too much. Or, because they do not feel the effects of the drug, they make take a higher dose to try to overcome the block.

Risk of overdose is also higher when an individual stops taking Vivitrol due to the lowered tolerance.

This is why it is so important to pair the medication with treatment. Hopefully when they decided to discontinue injections, they will have had sufficient treatment and will have other coping skills to help reduce their risk of relapse and overdose.

# Risk of Overdose

- There is a serious risk of overdose while on Vivitrol if an individual uses opiates.
- Users will try to overcome the block by taking larger amounts of opiates.
  - THIS DOESN'T WORK
  - Users will not feel the effects of the opiates. but their body will still react (overdose)

### Risk of Overdose

- Risk of overdose is also increased when an individual stops taking Vivitrol.
- O Their bodies have become less tolerant to opiates, so using their "normal" amount may lead to overdose
  - This is why it is so important to pair Vivitrol with treatment, to reduce risk of relapse if someone discontinues their monthly injections

### **Sudden Opioid Withdrawal:**

Unlike Suboxone and Methadone, Vivitrol CANNOT be administered during active withdrawal.

Initially, it was mandated offenders be clean from opiates for a minimum of 7-14 days. However, because many opiate users are unable to abstain in the community for this amount of time, injections are now able to be administered with small amounts of Methadone/Suboxone in an offender's system. This is to help reduce the amount of offenders put into custody to detox in jail.

If an offender has a large amounts of opiates in their system and they receive the injection, they could experience sudden opioid withdrawal. This looks like "dope sick" but is immediate and severe – can be life-threatening.

Offenders who get the injection with the allowed small amounts of Suboxone/Methadone may experience symptoms of this, but they will not be as severe.

### **SOBRIETY**

Read/explain study on slide.

# Additional side-affects:

### SOBRIFTY!

- Study: 250 users with 10 years of use
  - 90% were clean after 6 months on Vivitrol (and therapy) vs 33% placebo
- Cravings: Baseline of 20 cravings/day

  - 90 days reported lowest amount of cravings

### **DOC Vivitrol Pilot Program:**

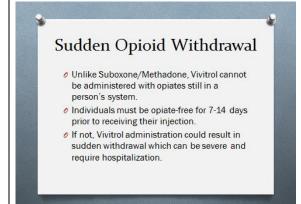
The pilot program began in April of 2016 in Region 4. The state granted \$800,000 to the region to offer Vivitrol to willing offenders who struggle with opiate abuse.

Initially, the pilot was targeted at offenders releasing from ERP, but it was modified to include those on community supervision and those releasing from medium security institution

The pilot officially ended in June of 2017, and the hope is

### DOC's Vivitrol Pilot Program

- Region 4 was given a large sum of money (a little over \$800,000 - or standard agent salary) to offer Vivitrol to willing offenders who struggle with opiate abuse.
- Began in April of 2016.
- Ø Data is being collected and this information will determine what will happen at the Pilot's end.



the program will be moving statewide. Wisconsin is one of the first states to use this model, and the data collected is being shared on a nationwide level.

### Who can participate?

People on active supervision or releasing to supervision may volunteer to be a part of the program. DOC cannot mandate individuals being on medication, so this cannot be used as a formal ATR and cannot be made a rule of supervision.

Must have an identified opiate addiction, or history of addiction with a high risk of relapse. While Vivitrol can be used for alcohol, the DOC program is targeted specifically for those with opiate addictions.

Individuals must have a high motivation for sobriety. Those who do not will be identified quickly, as they will likely continue to use other drugs while on the shot. They must be committed to treatment, this is non-negotiable. If offenders fail to comply with treatment and do not take the conditions seriously, they will be terminated from the program.

### Who can participate?

- Participants must volunteer and may withdraw at any time
- Anyone on supervision in Region 4 with an identified opiate addiction.
- Inmates completing ERP and releasing to
- [NEW]Inmates releasing to Region 4 from KMCI, TCI, FLCI, RGCI, and OSCI

### Additional Requirements:

- High motivation for abstinence.
- Current opiate user or history of use with high risk of relapse.
- Commitment to treatment (NON-NEGOTIABLE)

### **Agent Responsibility:**

Agents are responsible for transportation of offenders to their first injection.

\*Discuss scenarios: In custody releasing to community, in custody and returning to custody, or out of custody\*

It's recommended agents stay with offenders until they receive their injection. This is to ensure offenders actually stay and receive their injections.

\*Remind class this can be a scary experience for individuals, especially if they are releasing for custody and their first instinct might be to run.

Also, Vivitrol is a refrigerated injection. In order for it to be administered, it has to be removed from refrigeration and shaken to be brought to room temperature. If an offender absconds prior to receiving their injection, the drug has a very short shelf life and if it passes that, the DOC is billed

 This is to help ensure offenders do not leave prior to their injection (this is my fault – sorry!)



\$1200 for an injection which was never received.

This can also be a good time to establish professional alliance with your offender, especially if they are new to supervision and to your caseload. It is also good to meet and get to know the treatment providers in your community.

### **Additional Responsibilities:**

Agent should be making appropriate referrals as soon as possible. Because the offender is on Vivitrol, they should be treated as a priority and there should be no waitlist for them to get into treatment.

ERP/INST releases should follow the same procedures, but will receive their injections prior to release. Agent should work with the social worker and the offender to ensure this is completed and that their second and subsequent injections are arranged prior to their release to avoid any hold-ups in the community.

Agents will also be expected to comply with the supervision requirements and contact standards required for offenders on Vivitrol and accurately collect and report data.

### **Supervision Requirements:**

Make sure this is explained to your offenders. Vivitrol supervision is intensive and they should be prepared for a new level of supervision.

ENS for the first 120 days MAX for 120 days MEDIUM for 120 days

UA's need to be completed weekly during ENS and, at a minimum, bi-weekly throughout the remainder of their supervision. UAs confirmed through treatment providers are acceptable, but should be documented in COMPAS.

### **Response to Violations:**

Violations should always be responded to in an evidence based manner. Staff with your supervisor to determine an appropriate response.

### Agent Responsibility cont.

- Make appropriate referrals to treatment to ensure they begin ASAP.
- ERP Releases: Same process, except offenders receive their first injection prior to release
- Comply with special requirements and supervision level along with data collection.

### Vivitrol Supervision

- Mandatory ENS supervision for first 120 days
- Max for 120 days
- Medium for 120 days
- UAs required WEEKLY during ENS and bi-monthly for duration (regardless of supervision level)
  - UAs confirmed through tx provider or clinic are acceptable
  - Must be noted in COMPAS

Common violations include "test-runs," or offenders trying opiates one last time to see if the injection work. There has also been an increased use in methamphetamines. It is important to respond to these violations. Vivitrol should not be used as an excuse to use other drugs.

Example: An offender cannot continue to smoke weed while on Vivitrol, because "at least I quit doing heroin." This person would not be acceptable for the program because they do not have a genuine desire to be sober.

### **Violations involving opiates:**

Due to the high risk of overdose, any opiate use while on Vivitrol is serious, and can be a serious safety issue. We already talked about why this is such a risky behavior, so what do we do?

\*Ask class how they think they should respond in this situation. If the answer is to take them into custody, emphasize the following:

While a custody may temporarily reduce their risk of relapse, this will be pointless if they are released into the same environment after a day or two. We already know through evidence based practices this type of sanction is not effective in the long run. If an offender is placed into custody, make sure there is a good release plan to ensure they release into a situation which is less-risky than it was during their relapse (halfway house, residential treatment...).

### **DATA SHEET:**

Data is being collected and is essential to this program's future. The overall goal of Vivitrol in DCC is to ultimately reduce the number of deaths due to overdose over time. Hopefully, the data collected will indicate that use of Vivitrol over time is ultimately beneficial. This will allow the program to continue (hopefully statewide), and act as a model for the rest of the nation who are hoping to start something similar.

### Response to Violations

- They will happen.
- Respond to them in an evidence basedmanner (VSG)
- Things to look out for:
  - Meth use, increased or new
  - "Test-runs" (using opiates 'one last time' to see if the shot really works. It does.)

### Violations cont.

- ANY OPIATEUSE WHILE ON VIMTROL IS SERIOLIS
- Offenders will not experience a high, but the drug is still in their system.
- Tolerance will already be lower, especially if they were incarcerated prior to their injection, or they have received several and not used.
- They will overdose and die, without feeling any effect from the drug.

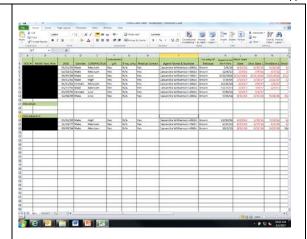
### Data Sheet

- All offenders and injections need to be documented on the Pilot Data Sheet
- When a new offender joins the pilot, email the entire data sheet with their information to: DOC Vivitrol Pilot Data

DOCVivitrolPilotData@wisconsin.gov

- Subsequent shots can be sent with subject line: OPIOID PILOT - LASTNAME, FIRSTNAME DOC#
  - Can send more than one update at a time, just make sure they can tell who got what shot and when.

Show data sheet, explain it needs to be sent a an attachment every time someone new is enrolled, graduated, or terminated. Shot updates can be emailed in the format seen on the slide.



### **Completion of Program:**

The first graduation was held on 06/12/2017. As of 03/14/2018, there have been three graduation ceremonies. Graduates are individuals who have completed the 12 months of injections. They are recognized by their agents, regional chiefs, and members of the Secretary's office.

Completion of Program

Offenders are considered graduates of the Pilot once they have received 12 injections.
Agents should work with offenders to continue ongoing services upon completion.
First Graduation Ceremony 06/12/2017

If there is time left, review slides with statistics on the program. Data is current as of 3/14/2018.